



# GREEN LINE EXTENSION PROJECT



**massDOT**  
Massachusetts Department of Transportation



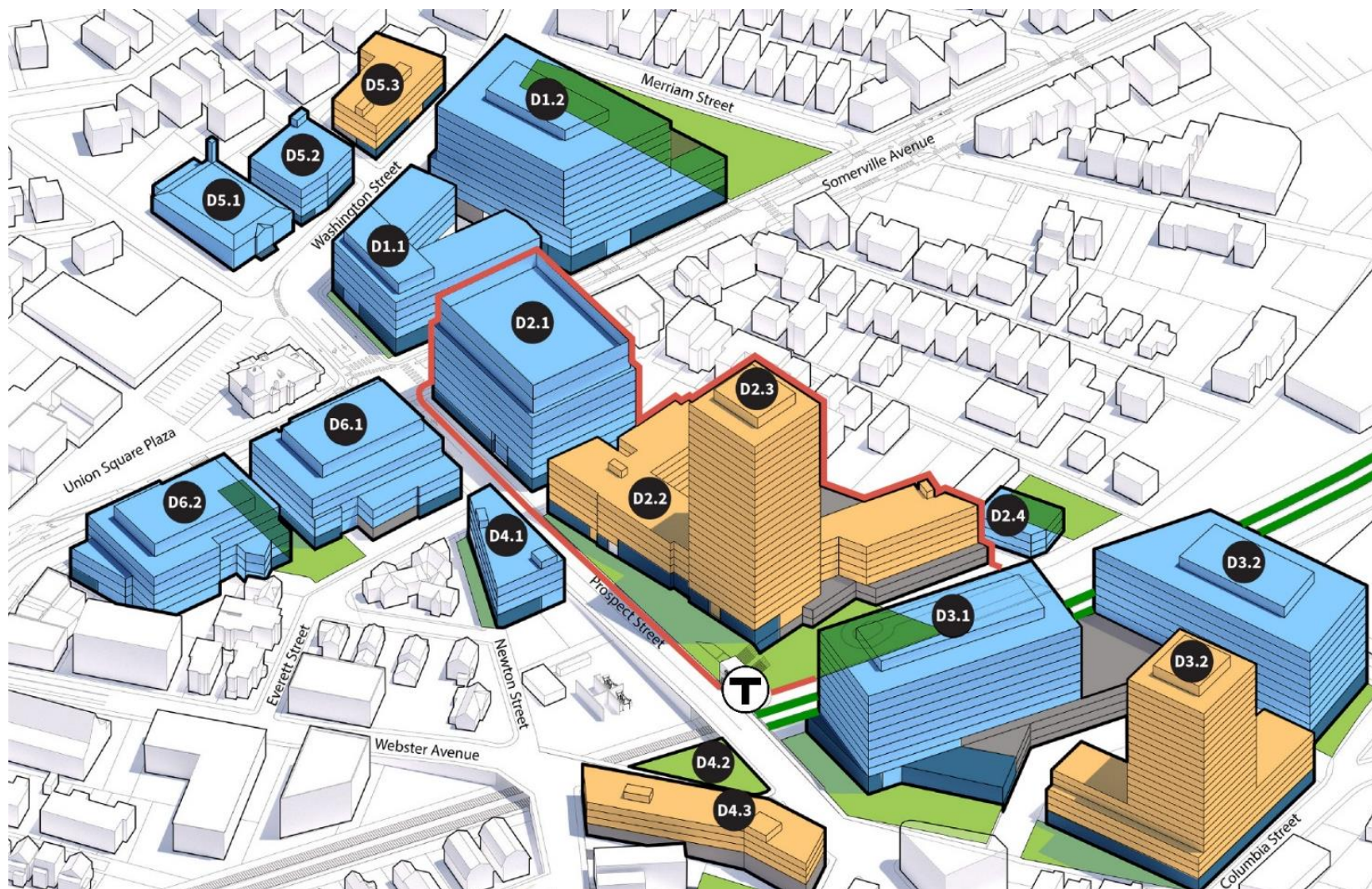
- I. Safety & Introduction
- II. GLX-PMT Update
- III. GLX-C – Construction & Design Update
- IV. Conclusion

## GLX-MBTA Update

Terry McCarthy, MBTA

- GLX General Public Meeting – January 2019
- CWG 2019 Meeting Schedule
- Union Square Station Design Status
- Latest Schedule for Bridge Closures
- Ongoing Maintenance of Traffic/Bus Operations Planning
- December 4, 2018, Holiday Gathering?





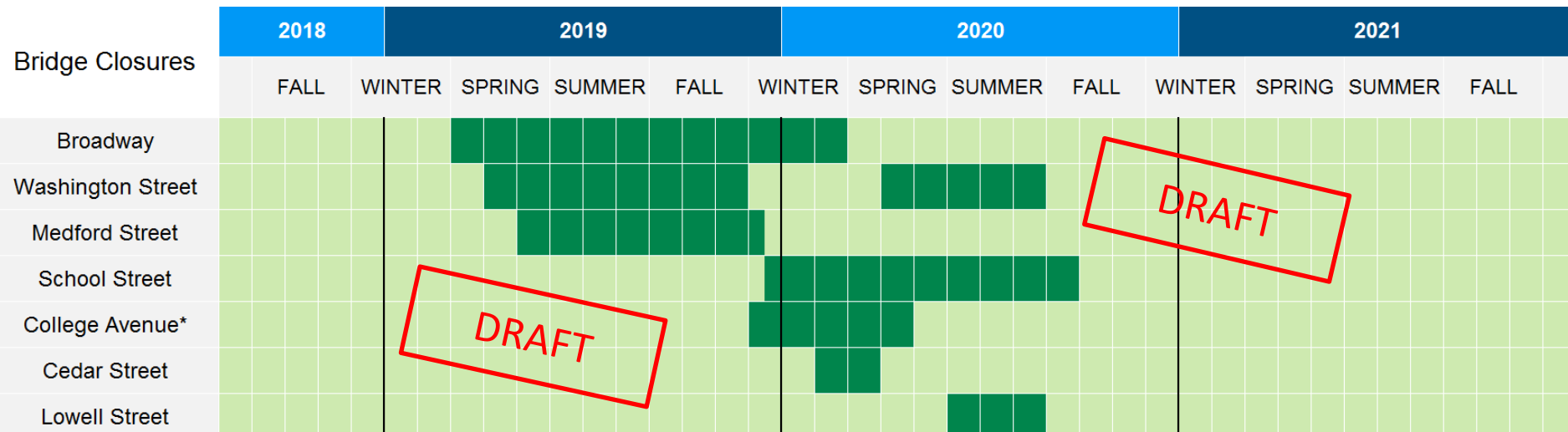
# CWG Meeting Schedule 2019

Month/Day/Year			Time		
January	8,	2019	8:30 AM	to	10:00 AM
February	5,	2019	4:00 PM	to	5:30 PM
March	5,	2019	8:30 AM	to	10:00 AM
April	2,	2019	4:00 PM	to	5:30 PM
May	7,	2019	8:30 AM	to	10:00 AM
June	4,	2019	4:00 PM	to	5:30 PM
July	2,	2019	8:30 AM	to	10:00 AM
August	6,	2019	4:00 PM	to	5:30 PM
September	3,	2019	8:30 AM	to	10:00 AM
October	1,	2019	4:00 PM	to	5:30 PM
November	5,	2019	8:30 AM	to	10:00 AM
December	3,	2019	4:00 PM	to	5:30 PM



- **SomerStreets Monster Mash Up Tabling Session On Somerville Ave.**
  - Sunday, Oct. 14 (between Union Square & Park Street)





\* Note: College Avenue Bridge traffic may be restricted at times but will remain open during construction.



- Local Cites and State Delegation – Cut Through Traffic Issues
- Reboot Your Commute
- Public outreach within Essex, Suffolk, and Middlesex Counties
- 96 Neighboring City/Town Municipalities
- 84 Media Outlets
- 29 Hospitals and Medical Facilities
- 26 Colleges/Universities
- In Process Chamber of Commerce and Large Employers Database

## Mass DOT Highway Division - District 4

- VMS Boards
- HOC – Overhead Signs from NH Border
- Apple & Google Database Updates – Detour Information
- Shared Outreach Efforts
- Temporary Diverted Truck Traffic Efforts

- Tobin Bridge ongoing Work
- Chelsea Off Ramp Work Spring 2019
- Alford St. Bridge Oct. 2018 – May 2019
- North Washington St. Bridge – Spring 2019
- Encore Casino Opening June 2019

## GLX-C Construction Update

Jeff Wagner & Mike Shea



## Safety

- GLXC All Hands Safety Meeting on Oct. 30



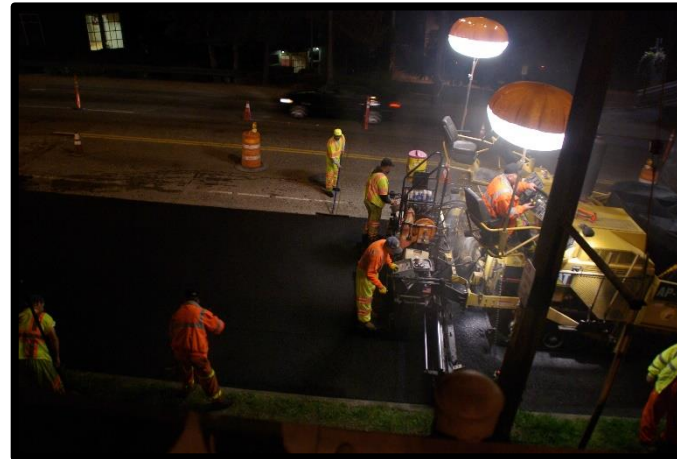
## Safety

### – Safety Recognition



## New Equipment for Safe, Less Disruptive Operations (Shea)

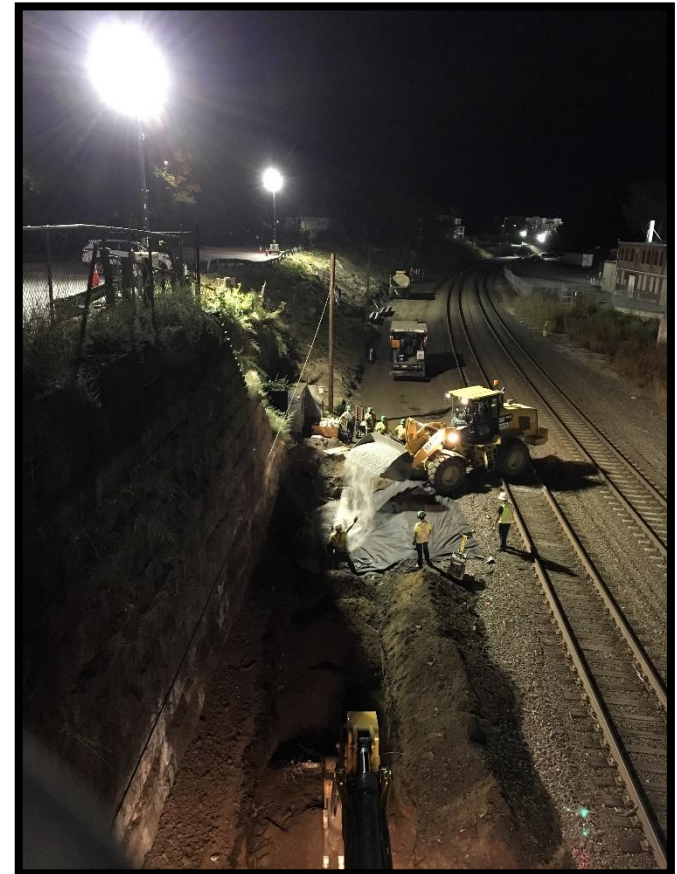
- Lighting improvements





## New Equipment for Safe, Less Disruptive Operations

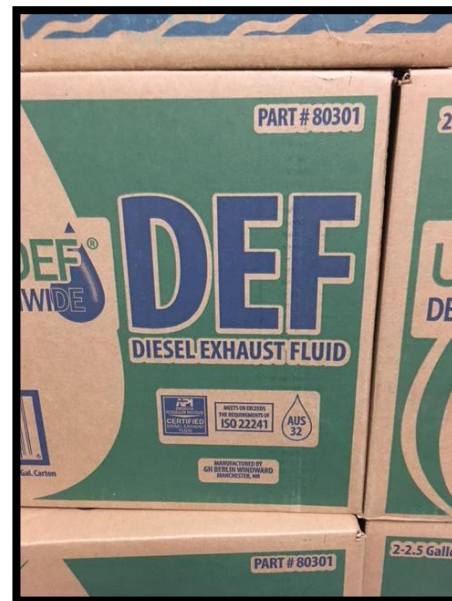
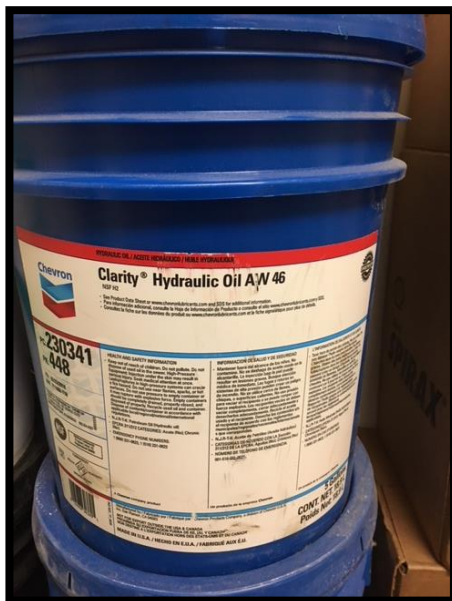
- Backup alarm improvements





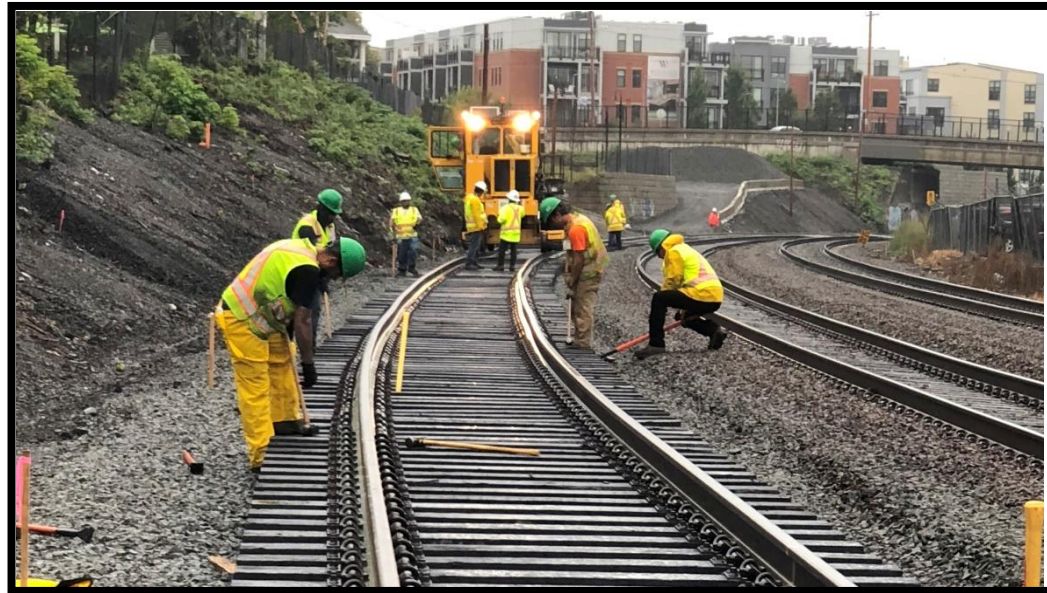
## New Products for Safe, Environmentally Friendly Operations

- Environmentally friendly hydraulic fluid
- DEF fluid promotes cleaner burning diesel engines
- Improved noise curtains



## Staffing

- 225+ personnel including GLXC and subcontractor staff



## Design

### Aerial Survey (Drone Flights)

- Upcoming Corridor-wide Drone Flights
  - Aerial Survey to aid Design and Construction
  - Result will be Stitched-together Ortho-mosaic Surface Model
- Flights will be capturing Aerial Imagery
  - Flights non-capturing personal space / property images, only rail corridor



## Example of Drone Capabilities

### Aerial Survey (Drone Flights)



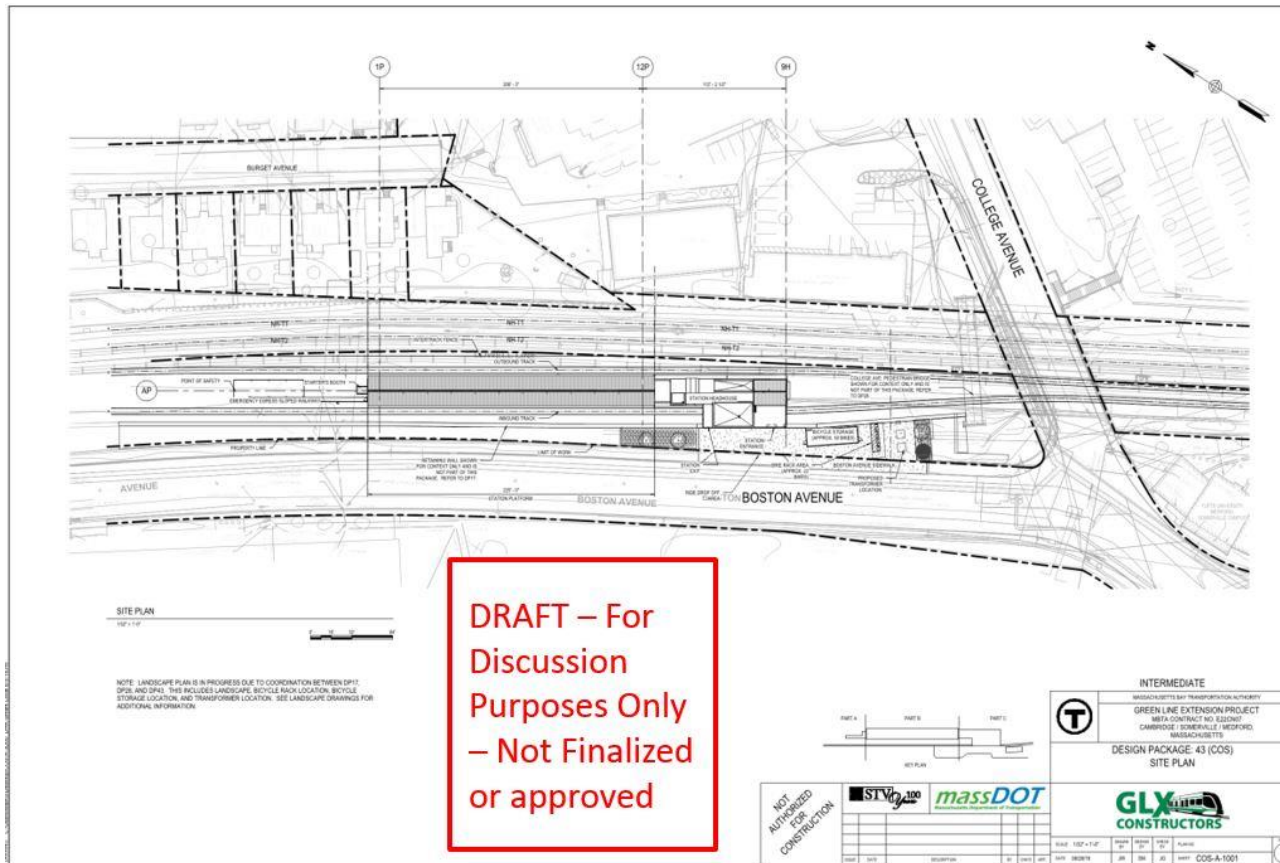


## Station Designs – College Ave. Station



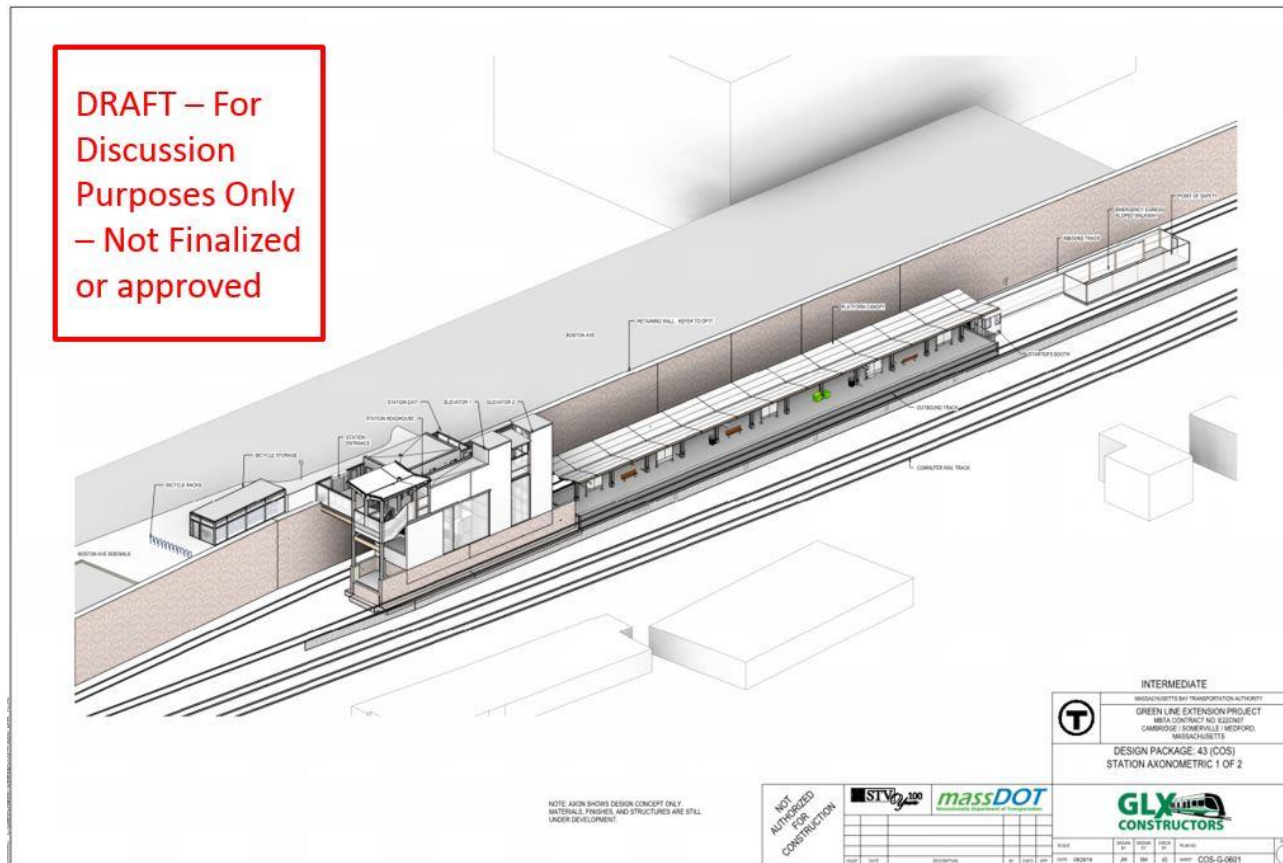
## Design

### - College Ave. Station



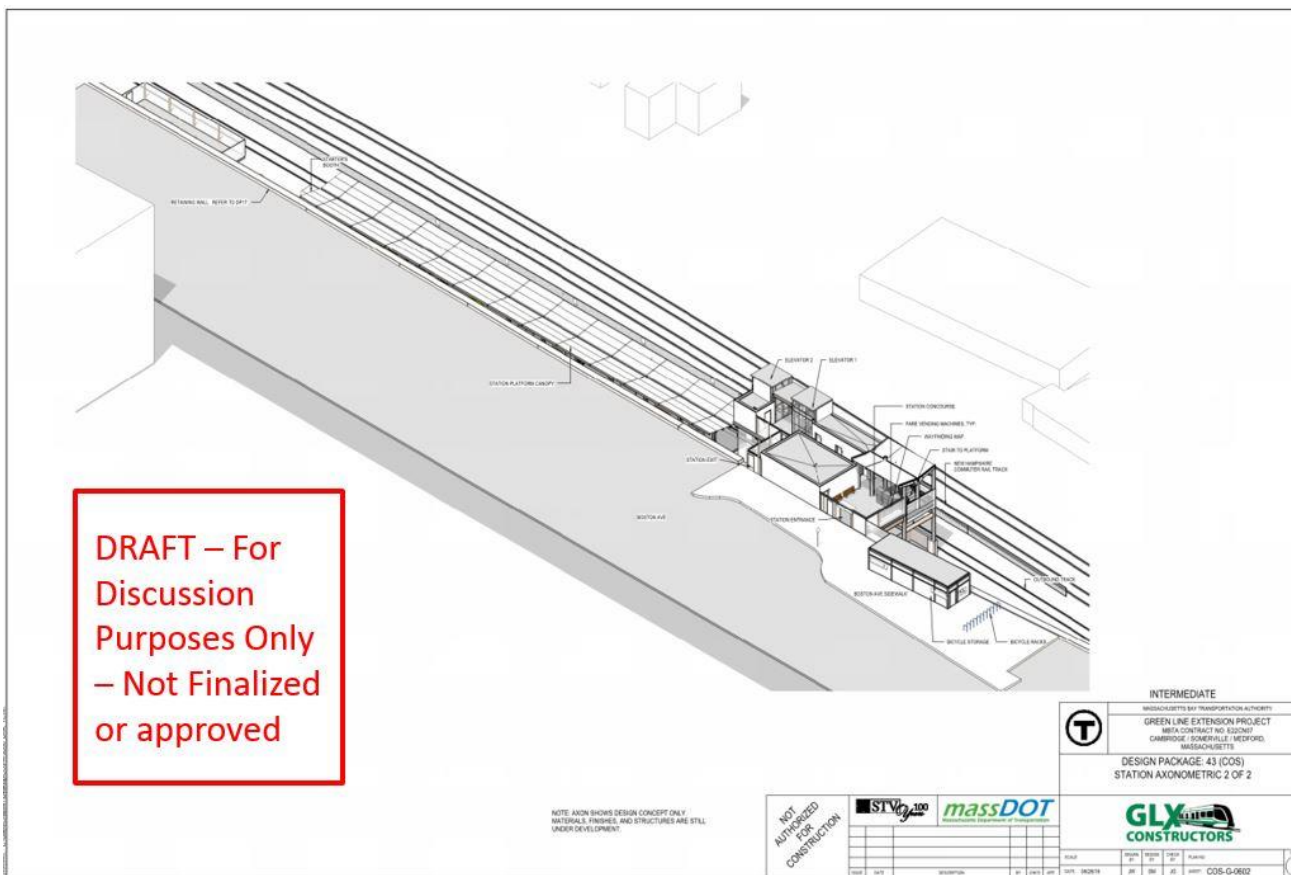
# Design

**- College Ave. Station**



## Design

### - College Ave. Station



## Design

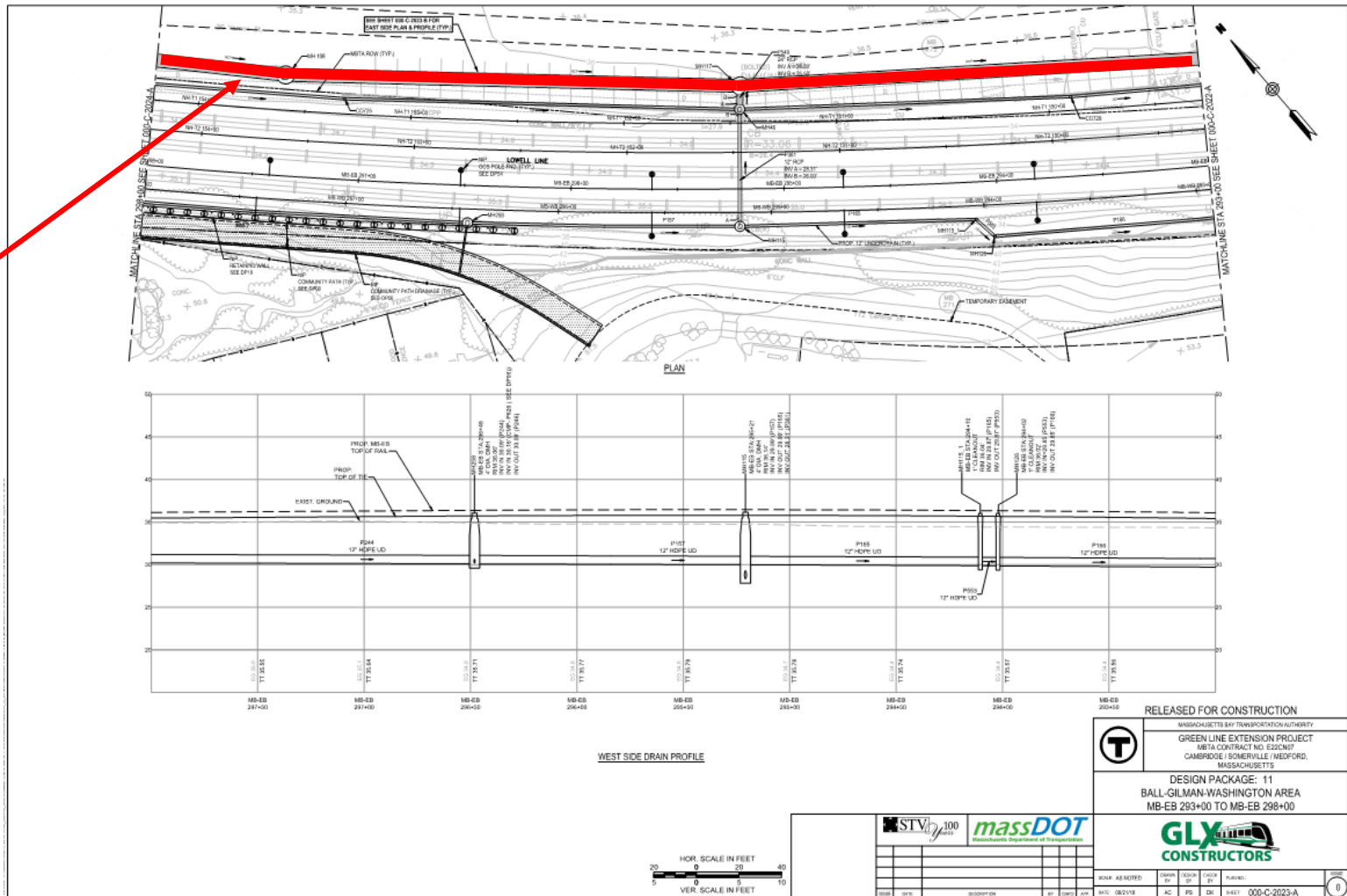
### Drainage Package 11 (DP11)

- DP 11 released for construction
- 11 miles of new stormwater drainage will be added along the alignment
  - o New system designed with 75+ year service life
- Project will utilize existing stormwater drainage system
- 4 main stormwater drainage tie ins to municipal systems: Cambridge, Somerville & Medford (2)



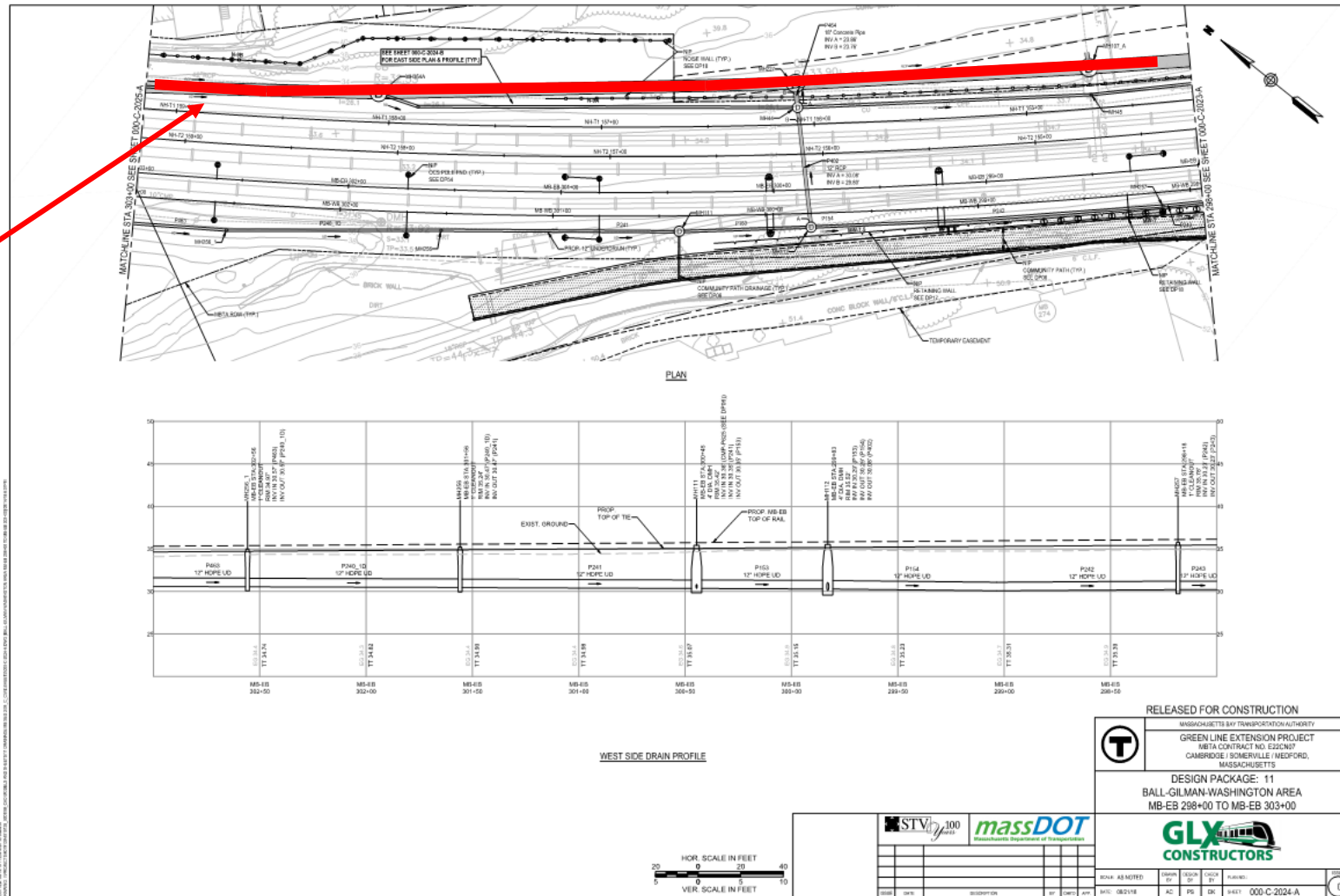
## Design

Drainage  
Line



## Design

Drainage  
Line



## Track Shift

- 7,500' track placed between Lowell and Washington St. (NH 2 Interim Track)
- 3,000' track between Walnut St. and Washington St. (NH 1)
- 15,500 tons of ballast



Play Video IMG 2889



## Track Shift

- New Rail Line (Walnut St. to McGrath Hwy.)



April 2018



October 2018

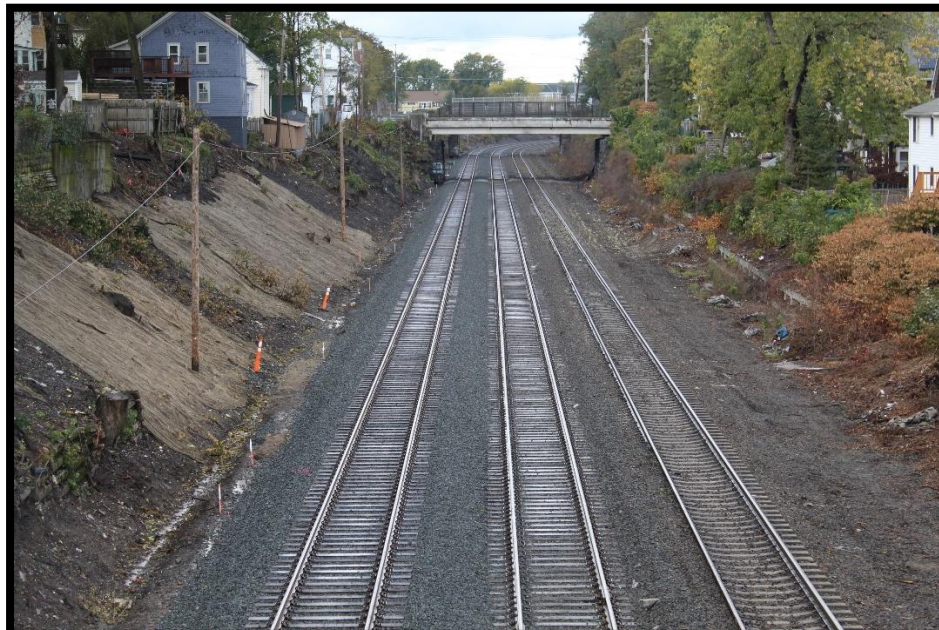


## Track Shift

- New Rail Line (School St. looking north)



April 2018

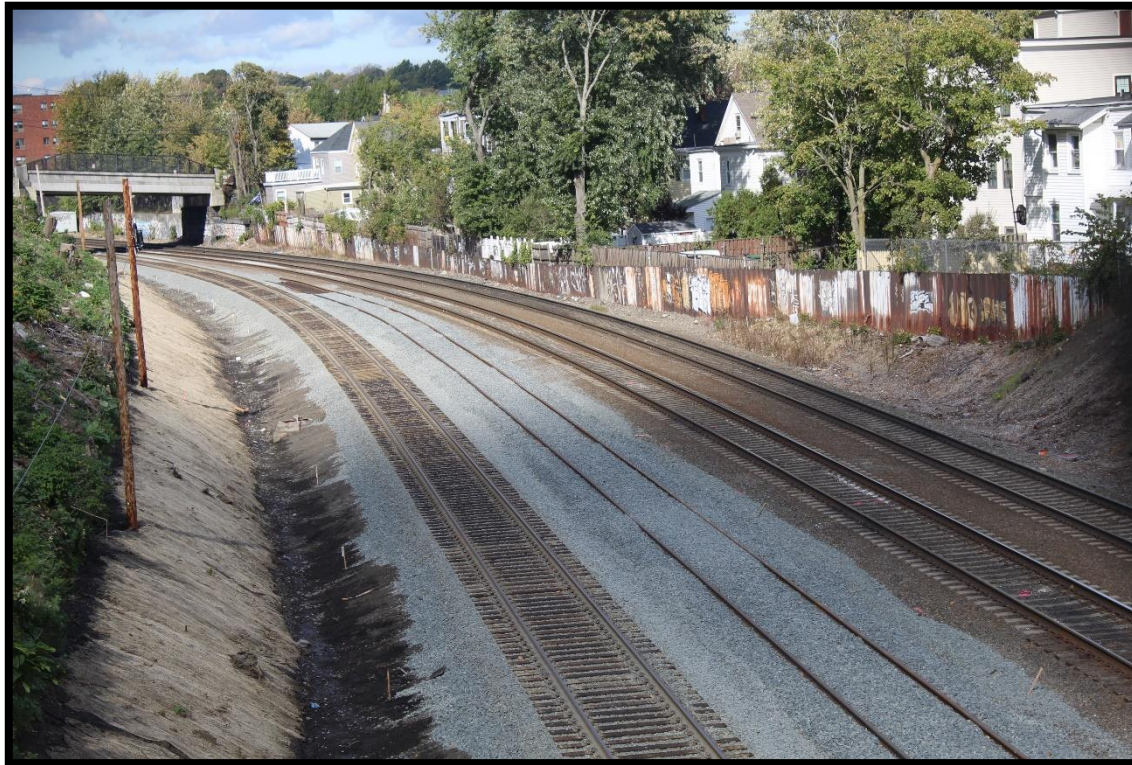


October 2018



## Walls

- Wall removal along Gilman St. (between Walnut & McGrath Hwy.)
- Construction fence will be installed
- Drainage and retaining wall work to follow



## Construction Support

- Multi-Purpose Machine (MPM) coming to GLX project after use on project in Ontario, Canada
- Will be on GLX project for next 2 years





## Trash Removal

- With track shift trash removal will continue along east side of alignment
- Additional trash removal on west side of alignment will not progress until 2020 because of fall protection and operating rail line safety requirements



## Bridge Demolition & Construction

- Now targeting start date of late February to Mid-March 2019 for bridge closure
- 12 month demolition and construction schedule



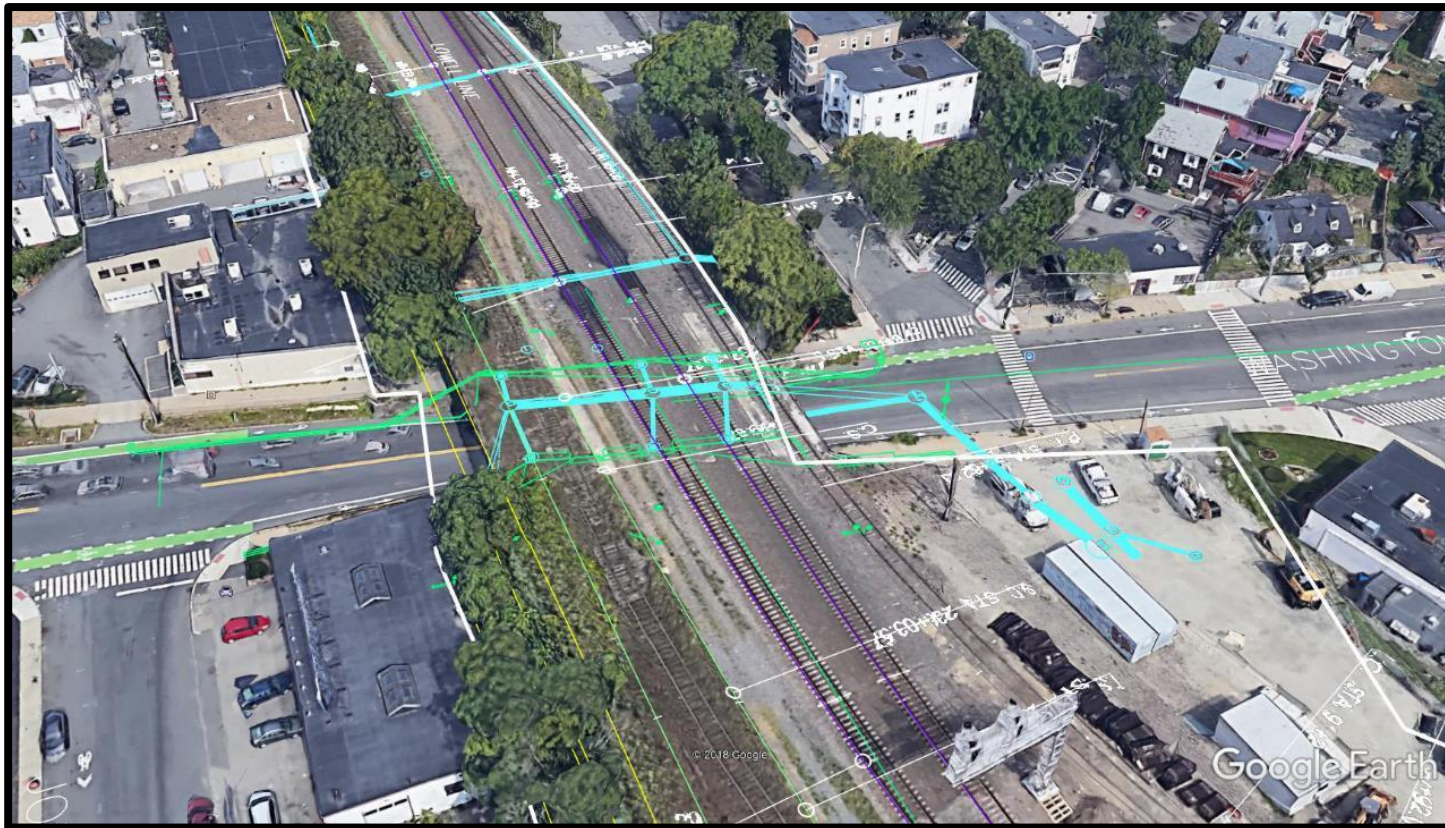


# Washington St. Bridge Update

## Target Dates:

**Phase I Closure – April 2019 to November 2019**

**Phase II Closure – Spring to Fall 2020**



## Demolition Update



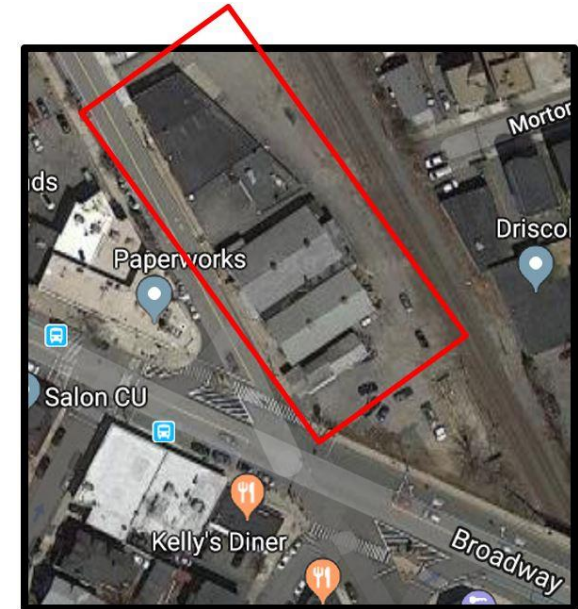
### 3<sup>rd</sup> Avenue

- Targeting late November 2018 including environmental abatement & debris removal



### Homans Building

- Targeting late November 2018 including environmental abatement & debris removal



### Ball Square

- Targeting December for completion of abatement & demolition.

# Discussion

Terry McCarthy, GLXC





# GREEN LINE EXTENSION PROJECT



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GLX Community Working Group  
Monthly Meeting  
November 6, 2018



**GREEN LINE EXTENSION PROJECT  
NOVEMBER 6, 2018 COMMUNITY WORKING GROUP MEETING – SUMMARY MINUTES**

LOCATION OF MEETING: GLX Project Office, 200 Inner Belt Rd, 3<sup>rd</sup> Floor, Somerville, MA 02143  
DATE/TIME OF MEETING: November 6, 2018; 8:30 AM – 10:00 AM

**ATTENDANCE:**

CWG Members: Frederick Dello Russo, Jr. (Medford City Council), Jennifer Dorsen (Somerville Ball Square), Ryan Dunn (Magoun Square), Jim McGinnis (Union Square), Laurel Ruma (College Ave), Jim Silva (Medford Ball Square)

MassDOT/MBTA: Terry McCarthy – MBTA Deputy Program Manager of Stakeholder Engagement

GLX Constructors (GLXC): Hannah Brockhaus, Mike Shaea Jeff Wagner

GLX Project Team: Randy Henke, Martin Nee, Joe Sgroi

Other Attendees: Viola Augustin (City of Somerville), Tim Dineen (VNA resident), Chris Devers (East Somerville resident), Amy Eastment (Brickbottom resident), Simon Hill (Union Square resident), Rod Mardid (Medford resident), Tim Talun (Union Square resident)

**PURPOSE:** The GLX Community Working Group (CWG) was formed to help engage and foster communication with the communities along the GLX corridor by meeting with representative members (both residents and officials) of Cambridge, Somerville, and Medford.

**BACKGROUND:** The Green Line Extension (GLX) Project is an initiative of the Massachusetts Department of Transportation (MassDOT), in coordination with the Massachusetts Bay Transportation Authority (MBTA). The project intent is to extend existing MBTA Green Line service from Lechmere Station through the northwest corridor communities of Cambridge, Somerville, and Medford. The goals of the project are to increase mobility; encourage public transit usage; improve regional air quality; ensure a more equitable distribution of transit services; and support opportunities for sustainable development.

**PRESENTATION:**

Terry McCarthy, MBTA GLX Deputy Program Manager for Stakeholder Engagement gave a GLX-MBTA update:

- The next public meeting will be held in January 2019 due to conflicts with holiday scheduling.
- US2 Development
  - GLX team recently met with Rep. Provost and others in the delegation and discussed question that was raised at a US2 Union Square public meeting a month or so ago about the MBTA's involvement on their design, and it was clarified that the MBTA is not dictating the US2 design for development. The project team meets periodically with US2 and will continue to work with them and city.
  - US2 is being delayed by environmental permits but GLX project has work-arounds to ensure Union Square Station will be able to open on schedule.
- CWG Meeting schedule for 2019 (slide 6 of presentation) will also be posted on the GLX website as a separate document. The GLX team will send Outlook calendar event invites to the group for meetings as well.

- Local GLX Outreach
  - Participated in SomerStreets Monster Mash Up Tabling Session on Somerville Avenue on October 14.
  - GLX has participated in 16 tabling events so far and has talked to an estimated 2200 people; these efforts have also increased the GLX email updates database from 4200 to 6200 email addresses.
- Reviewed updated bridge closure schedule (see presentation slide 8)
  - Broadway closure has been moved to late February/March, and once date has been set, the team will schedule a public meeting at least one month in advance.
- Discussed the MBTA/GLX regional outreach plan (see slide 9-11)
  - The #1 issue for the local cites and state delegation is cut-through traffic issues.

Jeff Wagner, Public Outreach for GLX Constructors (GLXC), gave a project safety update (see slides 13-14).

Mike Shea, GLXC Equipment Manager, gave an update on new equipment the contractor is using:

- Lighting improvements – GLXC is starting to use balloon lights that reflect the light into the immediate work zone with less light pollution into the surrounding area.
- Gave demonstration of back-up alarm improvements that use a “white alarm” that uses a white noise sound instead of beep and that gets louder when something approaches the equipment – GLXC has been switching out alarms with these types as part of inspections on their equipment.
- GLXC said their equipment is new equipment built 2016 or newer.
- Using environmentally friendly hydraulic fluid called Clarity Hydraulic Oil which is fully synthetic and used in the higher risk work equipment (not all equipment because of the cost).
- Using DEF fluid which promotes cleaner burning diesel engines and is in compliance with environmental regulations so that all equipment is either Tier 3 or Tier 4 (federal environmental regulation compliance).
- Also, GLXC is committed to using improved noise curtains when feasible. It was stated, the curtains cannot be used in every situation and that they do not work well in certain areas (e.g., steep slopes, where safety may be a concern, or in rapid deployment situations.)

Jeff Wagner then gave a design/construction update covering:

- Aerial Survey being done by drone flights that will begin this week (see slides 19-20)
  - These will allow for most up to date “Google Maps” like survey maps of the project areas and will be used to create a surface model strictly of the corridor (not beyond).
  - It was noted that it would take a month or two for surveyors on ground to get same information that the drones can observe and upload to a database instantaneously; they also have the ability to return to a site the same day if further information is needed.
- Showed updated College Ave Station designs and plans (see slides 21-24).
- GLXC said they were about 50% complete on design over the entire project.
- Reviewed update on drainage design package which will soon go out for construction (see slides 25-27).
- Reviewed updates on track shift work (see slides 28-30 for images of shift) and showed video demonstration of tamping machine equipment used during work.
- Walls update (see slide 31).

- GLXC is bringing a Multi-Purpose Machine (MPM) from Canada to use on GLX project (see slide 32 for images of machine).
- Update on trash removal in rail corridor (slide 33).
  - Trash removal is occurring now and in 2019 on East side of corridor.
  - Trash removal won't happen for the most part on the West side of corridor until 2020 with some exceptions that are needed now (between Cedar and Broadway).
- The GLX team reiterated bridge closure dates for Broadway and Washington Street (see slides 34-35).
- Demolition Schedule Update
  - 3<sup>rd</sup> Avenue demolition - targeting late November 2018
  - Homan's Building demolition – targeting late November 2018
  - Ball Square demolition – targeting December 2018

#### SUMMARY OF DISCUSSION/ISSUES:

##### US2 Development and Union Square Station

It was asked if Union Square Station would be a stand-alone structure like the other GLX stations or be integrated into development. GLX team said it would be a separate structure but they are coordinating with US2 and the city but need to advance the design and construction to meet project timeline.

##### Bridge Closure and Regional Outreach

There was a question on the change of the Broadway Bridge closure to February/March. The project team said that the bridge work was still in design and coordination with MassDOT and the intent is to ensure the shortest closure window possible.

It was inquired if there was a plan to address cut through traffic issues. The project team said yes, there is a plan ("Reboot Your Commute") for regional outreach to the public. The idea is to get people to change their commuting habits during these closures. Outreach is being done in Essex, Suffolk and Middlesex Counties and MassDOT is reaching out to Southern New Hampshire transportation agencies and communities as well (more on regional outreach plan on slides 9-11 of presentation).

It was asked if there are numbers about traffic flow in the project area and the percentage of traffic that is coming from outside the area. The project team said that MassDOT Highway Department is looking at the data from Rt. 2, Rt. 2A, Rt. 16, 93, as well as 95/128 and north for forming a plan. They have made a commitment for 2 weeks prior to the bridge closings to have digital highway signs with the closure information and there are talks of starting these signs at the New Hampshire border and continuing them into the Boston area.

A comment was made that the recent Veteran's Day parade in Somerville caused a 10-minute ride to take one hour due to Highland Ave street closures. The project team acknowledged that they know traffic will be difficult and the specific messages that will be displayed on Variable Message Boards are under development.

There was a question about the issue of maintaining security and enforcement during closures and if MBTA police would be part of the discussion. The project team said that yes, the MBTA Police are part of the discussion and are in close partnership with local police. The MBTA Police have Chapter 90 powers to enforce traffic laws and make traffic stops.

## Green Line Extension Project

It was commented that the City of Medford has indicated it does not have enough police resources for the enforcement of traffic laws during closures. The project team said that the MBTA police are discussing resources with all local police including the City of Boston. The team also noted that they have quarterly first-responders meetings with the fire and police departments and these meetings will increase as the project moves forward.

It was asked if GLX has communication with other local projects like the Eversource power project in Medford. The project team said they have a utility company coordinator who helps with planning and coordination on utility projects.

A comment was made that that the pedestrian traffic and detour needs should be addressed as well.

A comment was made that it would be prudent to have an alternative detour for Harvard Street in case the street needs to be shut down due to utility disruptions. It was said that an alternate detour needs to be part of the discussion.

There was a comment that the City of Somerville over the last few months has issued a weekly construction newsletter covering every project occurring in the city (not just city projects) and it is an incredibly valuable resource. On Thursdays, all contractors (including GLXC) send in their schedule and the information is shared with local police and others. The GLX team said it will be working to feed into a similar resource for Medford if one is developed by the city.

It was asked if the Alford Street Bridge project was a complete closure. The project team said it believes they are trying to keep one lane open during the project.

It was also noted by the project team that the Sullivan Square Station renovations would be ongoing until the spring of 2019.

### GLX Equipment Improvements

It was asked what was meant by tier 3 and 4 levels of equipment when discussing diesel engine compliance with federal regulations. GLXC said these were the levels the federal government introduced with different factors to meet these environmental guidelines on heavy construction equipment.

A member commented that the white noise alarm, lights and noise curtains should be demonstrated at the public meeting.

It was asked if there is an airhorn protocol every time a train crosses both day and night. The project team responded that yes, when workers are on site in the rail corridor during day or night it is part of federal regulation and safety protocol to use airhorn warning.

A resident at the VNA said that the improved equipment (white alarms and balloon lights) made a big difference during the track shift.

### Design

It was asked if the project would be using the aerial survey drones to make some project movies that could be shared with the group and the public as it could generate some great PR. The project team said they would work to have some movies for the next public meeting.



## Green Line Extension Project

A member inquired if the drone surveying would continue beyond November so they could let people know what was occurring. GLXC stated that surveying would begin this week and would be ongoing throughout the life of the project.

A member asked if the small gray box seen on the plans (on slide 22) was the bike cage. The project team said yes. The GLX team also showed where the bike cage and The Ride drop off were located on the left side of the design rendering on slide 23 (no Uber drop off area provided).

Members asked for a scalable PDF of the plans so they could look at them in more detail and asked the team to share plans of the other stations as well if available.

Looking at slide 23 rendering it was commented that if the station is basically on the sidewalk would it mean the noise wall/retaining wall would be right up against the sidewalk and if so, could more room be developed into design.

A member strongly suggested that the project should showcase the station designs first at the public meeting because this is what they are hearing people are most interested in. Any information that can be given on stations about their timelines and where they are in design would be helpful for the community.

A member stated that information from the project needs to be coming to the group more often, with communications improving and weekly updates would be much more helpful in order to let people know what is going on with the project.

Concerning drainage, it was asked how much interaction the project has had with the Medford City Engineer (keeping in mind that the area in Medford where this is going is fraught with drainage problems). The project team said that the drainage design package for the Medford area was submitted to the city 2-3 weeks ago and that Medford has provided comments. There is a workshop this week set up to address the issues/comments from Medford. GLXC also said there are technical working groups focusing on a range of issues like drainage where city officials are invited on a regular basis.

### Homans Building Demolition

It was asked if the Homans building is still slated to come down at the end of the month. The project team stated that they plan to be starting the demolition work at the end of the month.

There was a question as to if the Homan's demolition was being held up do to a lack of adequate safe storage of the lion's head recently removed from the building. The project team said the issue was not holding up the demolition and was being addressed.

A member said they would have expected to have already seen the demolition of the building started. The project team said the schedule of abatement for another building got moved up and when that was completed, they moved on to Homan's building.

### Multi-Purpose Machine (MPM)

It was asked how GLXC was bringing this equipment in from Canada. GLXC said it was being transported by train from Ontario.

It was mentioned by a member that this equipment would make for a cool touch-a-truck event.

There was a question as to if the MPM could be used on the trash clean-up effort on the west side of corridor. GLXC responded that they could not because of the active rail line on the west side and they need to use the MPM for other work.

### More on Building Demolitions

A member inquired if the sidewalk next to the Homans building would open back up after the demolition. It was discussed how maybe it could be but that this might not be useful to open back up because it would end at the bridge anyway.

It was asked what an abutter could expect for notifications for the demolitions at Homan's building and Ball Square. The project team said they had done some flyering in the Homan's building area about the demolition and abatement work and will probably do some more and will do something similar for Ball Square demolitions. The GLX team then clarified that it sent out certified mail to all the property owners and plan to flyer within 300 feet of the area.

A member of the Ball Square businesses expressed concern about the use a parking lot behind Paperworks. He was concerned he wouldn't have egress due to where trucks are parked so he asked to be notified on a timely basis of any disturbance the demolition may have on the area, especially since it is the holiday shopping season.

It was asked if Boston Avenue would be closed during Ball Square demolitions. GLXC said that they should be pretty low profile and don't expect much disturbance such as a road closure. At Homan's there could be some traffic stoppage on occasion due to proximity of road but at Ball Square biggest disturbance might be some of the trucks hauling the debris out of the area.

It was noted that it would be important to include timeline of demolition in notices to area in businesses.

It was suggested that a prominent sign with the date of the demolition be put on the building so passers-by would be aware of the work. The project team agreed that this was a good idea.

Members asked that the CWG be notified of further demolition information as well so they can get the information to neighbors.

### Construction Notifications

A member noted that the University Condo Group on Newburn Ave had not been notified about recent construction and need for trucks to be parking in their area. It was asked that the project team notify them at least 12 hours in advance so that people can make adjustments to adapt to construction. It was asked that the Driscoll business be given notification too. The project team said that there was an oversight about the notification. The project has notified this group in the past about work and going forward the plan is to notify them on a week to week basis about what is going on. The project team also mentioned that they had also discussed with this group about the temporary easement on their property and not seeing a need yet to put up a fence. GLXC said they also raised sensitivity level with crews about giving advance warning on work in that area.

### More on Station Designs

It was inquired if there would be the possibility of having input on station designs like egress issues and making Ball Square as easy to access as possible from Medford side without having to loop through Ball Square. The project team said that there are two egresses for the station --

one on the bridge and one down on Boston Ave and the project is hoping they can get out soon with advanced station designs for the community.

There was some discussion with the new upcoming MBTA fare collection system that there would not be a need for gates and could help allow for providing better egress.

A member noted that other train systems in other regions have virtual fare areas that use proof of purchase that doesn't get swiped but gets audited and enforced by transit officers from time to time on the train. It was suggested the MBTA should be using a system like this because it is time efficient. The project team said that it could be helpful to have members of the MBTA AFC (Automatic Fare Collection) project team as guests at a future meeting.

It was asked if the slide presented at the last Fiscal and Management Control Board meeting, which included the station design progress by station, could be shared with the members. The project team brought it up on the screen.

An update was asked for on which letter branch of Green Line (B, C, D, or E) would be used for the GLX College and Union branches. The project team said this was an MBTA Operations issue that was being determined. However, it was noted that the project has historically said it would use the D (Medford) and E (Union Square) branches.

A member asked if there could be a conversation with MBTA Operations about changing service for the branch because once the Green Line gets to Haymarket it slows to a crawl. So it was asked if GLX could talk to Operations about the possibility of a switch over to allow trolleys to reverse direction and at least get to the Orange and Blue lines. Otherwise you would there would be people waiting outdoors in bad weather.

Members asked for station design meetings with the public (maybe 2 stations per meeting) and if they could get designs in advance of these meetings. It was noted that people are really interested in the station designs. The GLX team noted that they are open to the station design meetings idea.

In response to a question, the project team also noted that there are 59 design packages for the 7 stations.

###